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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,658	03/30/2004	John J. Keane	NOR-1141	3420
37172	7590	03/03/2006	EXAMINER	
WOOD, HERRON & EVANS, LLP (NORDSON) 2700 CAREW TOWER 441 VINE STREET CINCINNATI, OH 45202			SAVAGE, MATTHEW O	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 03/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/812,658	KEANE, JOHN J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Matthew O. Savage	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 December 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 22 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 14-20 and 23-26 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6-15-04.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

Applicant's election of group II, the method, and the species shown in FIG. 2 in the reply filed on 12-21-05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 14-20, and 23-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to adequately disclose how to filter a liquid using only ultrasonic energy without a mesh filter as recited in instant claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-20, and 23-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 14, it is unclear as to how the liquid can be filtered since a mesh filter required for filtering the liquid has not been recited in the claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-16 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cohen et al.

With respect to claim 14, Cohen et al disclose a method in which liquid is supplied to a dispensing orifice 112 including the steps of directing the liquid from a liquid supply (e.g., the extruder described in the first paragraph of col. 9) to a passageway (e.g., defined by the apparatus shown in FIG. 1) communicating with a liquid inlet 110 and a liquid outlet 132, the liquid outlet upstream of the dispensing orifice, and applying ultrasonic energy to the liquid upstream of the liquid inlet that would inherently or obviously filter the liquid since the method subjects the liquid to ultrasonic

Art Unit: 1724

energy in a frequency range disclosed by applicant (e.g., 20 kHz, see the second full paragraph of col. 8).

Concerning claim 15, Cohen et al disclose restricting the flow of the liquid in a region of the passageway (e.g., via frustoconical shaped passage 132), and applying the ultrasonic energy to the liquid in the region (e.g., via horn 152).

As to claim 16, Cohen et al disclose applying the ultrasonic energy in a frequency between 15-500 kHz (e.g., 20 kHz, see line 42 of col. 8).

Regarding claim 21, Cohen et al disclose discloses the liquid as being a hot melt adhesive (see the fifth full paragraph of col. 6).

Claims 14-19, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ingen in view of Haley.

With respect to claim 14, Van Ingen discloses a method of filtering liquid including directing the liquid to a passageway (e.g., defined by housing 20, see FIG. 2) communicating with a liquid inlet 27 and a liquid outlet 27, the liquid outlet being upstream of a web coating process (see lines 55-58 of col. 2), and applying ultrasonic energy (e.g., via horn 12) to the liquid upstream of the liquid outlet so as to filter the liquid (e.g., with filter 11). Van Ingen fails to specify the liquid supply and dispensing orifice. Haley disclose that the inclusion of a liquid supply (see lines 48-53 of col. 6) and dispensing orifice (e.g., defined by extrusion hopper 7, see line 75 of col. 7) for a web coating process is known in the art. It would have been obvious to have modified the

filtering process of Van Ingen so as to have included the supply and dispensing orifice as suggested by Haley in order to provide a complete system for coating a web.

Concerning claim 15, Van Ingen discloses restricting the flow of the liquid in a region of the passageway (e.g., via the groove structure 30), and applying the ultrasonic energy to the liquid in the region (e.g., via horn 12).

As to claim 16, Van Ingen discloses applying the ultrasonic energy in a frequency between 15-500 kHz (e.g., 40 kHz, see line 69 of col. 2).

As to claim 17, Van Ingen discloses the step of filtering the liquid using a mesh 11.

Regarding claim 18, Van Ingen discloses the mesh filter 11 as being located downstream of the location at which the ultrasonic energy is applied (see FIG. 2).

Concerning claims 19 and 23, Van Ingen discloses reducing the size of contaminants located within the mesh filter (see lines 65-67 of col. 2).

As to claims 24 and 25, Van Ingen discloses entrapping particulates in a filter 11.

Regarding claim 26, Van Ingen discloses at least reducing the size of the particulates entrapped within the filter (see lines 65-67 of col. 2).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O. Savage whose telephone number is (571) 272-1146. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*M. Savage*  
Matthew O Savage  
Primary Examiner  
Art Unit 1724

mos  
March 2, 2006